Application No. 09/849,144
Attorney Docket No. 11685US03

REMARKS

The present application includes claims 12-29. Claims 12-18 were objected to by
the Examiner, but not rejected in light of any prior art. Claims 19-29 were rejected. By
this Amendment, claims 12, 14, 15, 18-22, 25-27, and 29 have been amended and claim
23 has been canceled.

The Examiner objected to claims 12-29 in light of several informalities:

First, in claims 12, 14, 15, 18-20, 25-27, and 29 the usage of the term "I/O port"
was found to be unclear. In the Office Action, the Examiner states that "I/O port" is
interpreted as "input and output port". Using this interpretation, claims 12, 14, 15, and 18
were not rejected in light of the prior art. Consequently, claims 12, 14, 15, 18-20, 25-27,
and 29 have been amended to recite "input and output port". Thus, claims 12-18 are
respectfully submitted to be allowable.

In claims 21 and 22, the term "multiplexer/demultiplexer" was found to be
unclear. However, the Examiner states in the Office Action that he considered the term
"multiplexer/demultiplexer" to mean "multiplexer or demultiplexer". Claims 21 and 22
have been amended to reflect the Examiner's interpretation.

In claim 23, the term "1xM" and "1xN" were found to be unclear. However,
claim 23 has been canceled in this Amendment.

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Claims 19-29 were rejected under 35 U.S.C. §102(e) as being anticipated by

Gupta, U.S. Patent No. 5,787,070. Gupta teaches a one for N redundancy in a

communication system. As shown in Figure 2 and discussed beginning at Col. 4, Line

27, Gupta includes an interface shelf 28 having a plurality of line modules 70-74 and a

plurality of service modules 60-64. During normal operation, the line modules 70-74

engage in bidirectional communication with the service modules 60-64. Additionally, the

interface shelf 28 includes a redundancy module 65. The redundancy module 65 is

external to the line modules 70-74 and the service modules 60-64. However, the

redundancy module may communicate with each of the line modules 70-74 using a

redundancy bus 80 and with each of the service modules 60-64 using a distribution bus

82.

As further illustrated in Figure 3, each of the service modules includes a line

interface circuit 94, 96 and a slave processor 100-104. Figure 3 illustrates what happens

when the line interface circuit in one of the service modules 60 fails. That is, when a line

interface circuit in a service module fails, communications are routed through a spare line

interface circuit 108 in the redundancy module 65. More specifically, communications to

the service module with a failed line interface circuit 108 are routed from the line

modules 72-74 along the redundancy bus 80 to the line interface circuit 108 of the

redundancy module 65. The switching circuit 106 in the redundancy module 65 then

directs the communications to the slave processor 100 in the service module with a failed

line interface circuit 108.

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With regard to claim 19, claim 19 has been amended to recite that the spare line card is connected to less than all of the line cards in the group of line cards. Conversely, Gupta teaches connecting all of the line interface circuits in the service modules to the redundancy module using a bus. Consequently, because this claim limitation is not taught by Gupta, claim 19 is respectfully submitted to be allowable.

With regard to claims 20 and 29, claims 20 and 29 have been amended to recite a line card with two local ports, both of which may be configured to pass either input and output port data or link port data. Gupta does not teach a line card with two local ports. Further, even if Gupta did teach a line card with two local ports, Gupta does not teach that both ports may be configured to pass either link port data or data from the input and output port. Consequently, independent claims 20 and 29 are respectfully submitted to be free of Gupta and allowable. Further, dependent claims 21-22 and 24-28 depend from claim 20 and are consequently also respectfully submitted to be allowable.

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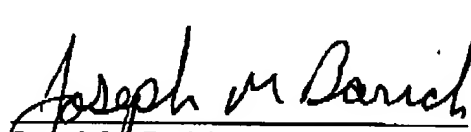Attorney Docket No. 11685US03

CONCLUSION

If the Examiner has any questions or the Applicant can be of any assistance, the

Examiner is invited and encouraged to contact the Applicant at the number below.

The Commissioner is authorized to charge any necessary fees or credit any

overpayment to the Deposit Account of McAndrews, Held & Malloy, Account No. 13-

0017.

Respectfully submitted,

Date: May 31, 2005

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